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### ESSAY ON THE CULTIVATION, FEEDING, &c. OF ROOTS.

The following Essay was presented for the prize offered by us some time since, for which there was no competition. It is dated at Princeton, N. J. but the author is unknown to us; we should be pleased to obtain his address, as we desire to present him with certain volumes of this journal for his Essay, which, as far as our judgment extends, contains much valuable instruction upon a branch of husbandry, the importance of which cannot be too highly estimated, and which is daily becoming more extensively practised.]

#### ESSAY.

Having for several years past paid considerable attention to the culture of roots for my stock, the experience which I have thus acquired has enabled me in each succeeding year to increase my crops, while the expense of cultivation has been considerably lessened. The flattering success which has attended my efforts in this branch of husbandry, has induced me to become a competitor for the premium you propose to award for the best essay on the cultivation, feeding, &c. of roots; with this view the annexed is therefore offered for your consideration.

I shall in the first place treat of the soil and its preparation. A deep loam is most favorable to the successful cultivation of root crops, as the long tap roots penetrate more readily to such a depth as not to be affected by an ordinary drouth; and soils of this character, when highly manured, become so retentive of moisture, that root crops under judicious cultivation are rarely injured to any extent by the severest drouths, as was evinced by my crop during the great drouth of 1837. But no farmer, let his soil be of what character it may, should be deterred from making an effort to raise either the beet or ruta baga for his stock. Deep ploughing, the soil well pulverized, liberal manuring and judicious after culture, will ensure a remunerating crop upon any soil; and when he has once had the pleasure of witnessing the improved condition of his animals, the increased quantity and improved quality of his manure, and heard the flattering statements of his wife, touching the improvements of her dairy, he will be goaded on to farther efforts.

Experience, however, has convinced me that entire and uniform success in root culture depends upon many things—each small in itself, but of the greatest importance when taken in the aggregate. I shall endeavor to treat of each in its proper place: In regard to the preparation of the land, much must depend upon the nature and quality of the soil; a sandy soil or mellow loam would, with one ploughing, be put in finer tilth and better condition for planting, than a stiff clay, or many other soils ploughed at an improper time (either too wet or too dry) with three ploughings and as many harrowings; let it suffice to say, the soil must be completely pulverized, or it is useless to commit your seed to the ground; this is a matter very easily accomplished, if the soil is ploughed when in a proper state; seize this opportunity whether it be earlier or later—harrow while the furrow is yet moist; if

not completely pulverized, apply the roller, and the work is accomplished, and the first important step has been taken to secure a crop.

A clover sward or ley is to be prepared; first, on account of the great quantity of vegetable matter, which will all be decomposed and converted into food for the crop at the time the bulbs are growing most rapidly, which is at a late period in the season, (particularly turnips) as it is a fact well known to all turnip growers, that however luxuriant the foliage, the bulbs do not increase rapidly in size until the nights have lengthened considerably, and become cooler; but what is more important, the roots of the clover are more evenly distributed through the soil than it is possible to intermix manure or vegetable matter by any artificial process; hence that portion of the soil in the immediate vicinity of the plants, and which cannot after planting be stirred with the plough or any other implement, retains its mellowness and is kept in fine tilth throughout the season, and of course retains more moisture and furnishes a finer bed for the plants.

The quantity of manure necessary to apply will in a great measure depend upon the richness of the soil. Eight or ten cords of unfermented manure to the acre on an ordinary soil is sufficient to ensure a fair crop. Let this be spread and turned under with the plough as early in the spring as the land is in proper condition for this operation; but the furrow should not be completely inverted; let them be laid one against another; in this way the manure will be very evenly distributed from the top to the bottom of the furrow. A plough, manufactured by Wiley & Conklin, of Peekskill, N. Y., performs this operation better than any I have seen used. The land should be rolled and harrowed twice or thrice before the season arrives for planting. The seeds of all weeds will vegetate during this period, and be destroyed by the harrow, while the soil will be much benefited by having a mellow surface constantly exposed to the atmosphere. When the season for planting has arrived, spread upon the land ten or twelve loads (say 30 bushels each) of compost to the acre, which should be prepared for this purpose early in the spring or fall previous; harrow once to cover the wagon tracks and make all smooth and mellow; then with a plough throw the land in ridges three feet distant from centre to centre of each ridge. By this operation, the compost which has been spread upon the surface will nearly all be gathered into the ridge, and placed in a situation to come in contact with the roots of the plant in the earliest stages of its growth, and ensure a healthy and vigorous start, which is a matter of much importance. If the preparation of the compost should have been neglected, spread by hand a small quantity of wood ashes (say 10 bushels per acre) upon the centre of the ridge immediately after the seed have been drilled in. The land should be ridged for two reasons. In the first place it gives a greater depth of soil—an advantage to all tap root plants;—and secondly, it saves much labor in the after culture, as the elevation of the plant upon the ridge will permit the use of the plough or cultivator (the latter implement I consider the best) between the rows, at a very early period of their growth, but if planted upon a level surface, the hoe must be used for a considerable time, which is both tedious and expensive.

#### SEED, PLANTING, &c.

Turnip seed may be planted dry, as they vegetate very soon; but the sugar beet and mangel wurtzel seed should be put in a vessel, and water (quite warm) poured upon them, to remain therein for the space of twelve hours—the water to be changed occasionally so as to be kept warm during the whole time—then poured off and the seed set in a dark place; they will vegetate much sooner than if left in the water; let them be stirred two or three

times a day, bringing those at the bottom uppermost to keep the moisture equally distributed through the whole mass. When they begin to vegetate mix a small quantity of ashes or plaster with the seed to absorb the superfluous moisture, and prevent them from adhering to each other; they may then be thrown in the drill and planted, which should if possible be done on the same day the ridges are formed; in fact, the sooner after the ridge is thrown up the better, as the newly formed ridge will be sufficiently moist to bring up the seed without the aid of rain. I have frequently had my plants to appear above ground in less than three days after the seed were planted. Another very important advantage resulting from planting on a fresh ridge or one newly formed, is, that the plants attain such size, that the first hoeing and thinning may be performed before the weeds interfere in the least with this operation, by which, a saving of 100 per cent. in the labor will be effected. This operation is also much facilitated by an improved hoe which I have used for the last three years—one man performing as much labor as three or four men with the ordinary hoe, and not being in general used, I shall here attempt to describe it: There is first an eye, in which the handle is to be inserted; to this eye there is attached two prongs similar to those of a hay fork, only larger and much more curved; at the extremity of each of these prongs a small hole is made for a rivet; a very thin blade of the best steel two inches wide and seven inches long, (which is the space between the extremities of the prongs)\* is secured to said prongs by rivets; the two prongs are so curved that the blade when attached sits considerably inclined in a direction parallel with the handle. With this, any ordinary hand may, in a few minutes, be taught to hoe or dress a row of plants with nearly the same facility that he would walk from one end to the other, drawing the implement after him, with the blade kept just beneath the surface—one corner nearly in contact with the plants, thus passing down one side and up the other, of each row. This operation should be performed in the forenoon of a clear day, whereby, the weeds will all be destroyed before night by the influence of the sun. Another and more experienced hand should follow with a similar hoe to thin the plants, which he will perform by drawing the hoe across the row at regular intervals of twelve inches—the hoe being seven wide, will leave a space of five inches untouched, in which space, if a sufficient quantity of seed has been used, there will remain from two to six plants; the cultivator may then be used between the rows, and if this operation be carefully and skilfully performed, nothing more will be necessary until the plants have become firmly fixed in the soil, when the inferior and superfluous plants may be thinned by hand—the most healthy and vigorous plants only being left. If there be any vacancies, it is better to leave some extra single plants (the plants to be left about twelve inches apart) until they have attained the size of a man's finger, when they may be taken up with a sharp stick and transplanted. If this operation is performed when the plants are very small, in nine cases out of ten it will prove a failure; but if delayed until this stage of their growth, they will scarcely be distinguished at harvesting from those not transplanted. If the weeds are entirely eradicated when the operation of thinning is performed, one slight hoeing is all the hand labor that will be required thereafter. The foliage will soon become so dense as to prevent any farther growth of weeds in the immediate vicinity of the roots. The space between the roots may be kept in fine tilth and perfectly clean with a cultivator drawn by one horse. (I use an implement of this kind with a hinge in front, by which

\* Prongs, six inches—blade, seven, as seen by plate at bottom.



it may be contracted or expanded to any width, and as the roots increase in size, it is contracted to suit the space.) In this way it will be perceived a crop of roots may be raised with very trifling expense. My crop of sugar beets the last year cost four cents per bushel.—My ruta бага a fraction less than five cents. In the estimate of cost I charged fifty cents per load for the manure, which I believe quite enough, as but little more than half the manure is consumed by the root crop. For use of land I charged the interest of \$1 per acre. The farmer should always bear in mind that the old adage—"a stitch in time saves nine," will in no case apply with more force than in the culture of a root crop. Let him seize the earliest opportunity, after the plants have attained sufficient size, to perform the first operation, viz: hoeing and thinning. There may fall a heavy rain, or a continuation of wet weather may render his land too wet to cultivate until the weeds get such firm and full possession, that he will find it almost as tedious and expensive to supplant them as to get a possession through a writ of ejectment in the Court of Chancery.

The preparation, manuring, &c.—in fact, all the preparatory process hereinbefore recommended, will apply to all root crops, except, in preparing for the potatoe, slight furrows should be made three feet distant from each other—the potatoe planted (large tubers should always be cut) about twelve inches asunder in the furrow, and covered by running a furrow on each side, forming a slight ridge over them, which may be rolled down as soon as the planting is completed.

The after culture of the potatoe must in some measure depend upon the variety cultivated.—For instance, the Foxite, the most esteemed variety among us, requires level cultivation (no hills;) the bearing roots appear to seek and spread over the whole surface or space between the rows; fine tubers will be found growing or grown from twelve to eighteen inches from the hill, or place where the seed were deposited.

There are some other varieties, viz: The Rohan, the Long Reds or La Platte, and Mercer, all grow in a cluster around the stem; the ground is burst open, and as they increase in size, the potatoe becomes exposed to the sun, &c., turns green, and is rendered worthless: hence, with such varieties the quantity is increased and the quality improved by the process of hilling; but this process should be performed soon after the tubers have formed.

#### GATHERING AND STORING.

The sugar beet and mangel wurtzel, as also the ruta бага, are all drawn from the ground by hand; but in regard to the two first named roots, the operator should, while he holds the root in his hand, *twist off* the top, as it may be done quite as soon as cutting—with less danger of injury to the roots, and thereby require once handling only to complete this operation. The tops and roots may each be thrown in separate heaps when they are ready to be loaded, by boys into carts. The harvesting of the ruta бага should vary somewhat from this, as with them, it is *necessary* to use a *knife*; for it is highly important that the fibrous root or roots of the turnip be all cut off; animals should not be permitted to eat them—they possess an acid quality that invariably produces scouring, and if persisted in will reduce the finest animal to a skeleton. Several individuals of my acquaintance, who have recently commenced the cultivation of ruta бага inform me that they have produced such a laxative state of the bowels, as to produce doubts in their minds whether they are actually of any service as food for stock; upon enquiry, I found in every case the fibrous roots had been fed with the bulb. I have fed several animals the past winter (for beef) with  $1\frac{1}{2}$  bushels each per day, and without an exception their bowels have remained in a healthy state during the whole time. A small quantity of salt is given with the morning mess each day. But to return to the gathering: the cheapest and most expeditious mode is to pull and throw four or five rows together; other hands follow with suitable knives—seize the top, and at one stroke separate the small root or roots from the bulb or turnip; and by another stroke just below the hand divest it of the top—throwing the tops in small heaps; a dry situation should then be selected, and a hole dug four feet wide and one foot deep, of any length that may be required; fill up even with the surface, and continue adding until it assumes the form of the roof of a building, only steeper; cover with long straw, and over that a sufficient quantity of earth to protect the roots from frost; let them remain in this situation until the ground becomes frozen, then with a crow-bar or some-

thing similar, make holes on the centre of the ridge through to the roots, at the distance of four feet from each other. If these directions be followed, they will be in as fine condition on the first of March as when buried. Burying in the field is certainly preferable to cellars, particularly for the turnip, as they are much more liable to heat than the beet, which should by all means be avoided if possible, if they are intended as food for milch cows, as the young and tender leaves which they throw out when they become heated, impart a very disagreeable flavor to both milk and butter. Every farmer, however, should have a cellar under or contiguous to his barn that would contain a sufficient quantity to feed during the winter, or a greater portion of it. As the roots are now disposed of, a word in regard to the tops: they should be gathered and laid (not too thick) in some cool place; those from beets should be fed to milch cows—from ruta бага to young stock, or cows not in milk, as they give to the butter an unpleasant flavor.

Every farmer who cultivates the mangel wurtzel or sugar beet should raise his own seed; as it not unfrequently happens that three-fourths of the seed will not vegetate—a serious loss and disappointment after being at the expense and trouble of preparing the land. The cause of this failure is generally attributed to *old seed*. I was also under this impression until I attempted to raise my own seed, when I discovered the true cause. The seed plants throw out a number of long and tender stems or stalks, which soon become heavily loaded with seed, and unless supported in some way, the most valuable stalks are broken off by the first storm of rain or wind they encounter. The seed from these stalks are all gathered by the seedsman and sold with the good seed, as they scarcely differ in external appearance from those that have been perfected. Where the plants are set in rows, a few sticks with forked ends, set in the ground, on each side the row, with poles laid in the fork at a proper height, furnish a cheap and sufficient support. Single roots may be supported by two or more small cords tied around the stems at different heights. Of good seed, one pound of ruta бага and two pounds of beet are amply sufficient for one acre. My experience in the cultivation of the carrot has been very limited. Finding them to require so much more hand labor than the beet or turnip with greater expense in gathering, while they were far inferior in point of productiveness, I was under the impression that their superiority as food for stock was much more than counterbalanced by the increased quantity per acre of the other roots at less expense, and therefore abandoned their cultivation.

#### FEEDING, &c.

I have made some experiments in steaming roots for my stock, but did not consider the advantage derived from this process sufficient to pay for the extra labor and expense. My apparatus being small (having been erected for preparing food for a small number of swine,) and not convenient to my barn, I found it attended with much labor—and as this cannot be done under the eye of the farmer, who, like myself superintends and aids in executing the other labors of the farm, much time is generally wasted by the hand employed in preparing the food and distributing it among the stock. The plan of feeding which I have adopted is as follows: Near the cellar which contains the roots is placed an oblong box, made of plank, say three feet by six, into which the roots are thrown; a common garden spade ground sharp is used to cut them; baskets with a hoop handle that will each hold a feed for one animal are provided; with these, the prepared roots are carried by a boy into the alley in front of the stalls in which the animals are confined, and deposited in a tight manger, (the first stall in the range being only twenty feet from the cellar.) In this way two boys, one to cut and the other to carry the roots, will feed a large stock in a very short time, and under the eye of the master while he is employed in attending to other stock about the stables and yard. A small quantity of salt is given with the roots once a day.

I have for some time entertained the opinion that the best plan of feeding roots is to grate them fine and mix them with cut hay or straw; and this opinion has been confirmed by an experiment made during the past winter: Pounding the beets to a jelly and mixing with them an equal quantity of cut straw moistened with water, the whole mess was eaten greedily, and in two weeks the animal had evidently improved in appearance—eating the same quantity of roots she had before. It is very certain, the more coarse provender cattle can be induced to eat

with their richer or more nourishing food, the better will be their condition.—Thus, in wintering store cattle, after they have had their feed of stalks or hay in the morning, a rack is filled with straw to which they have access through the day, by which, (experience has proved) they are much benefited. I contemplate procuring for use next winter a grate mill, (similar to those used for apples) to attach to the horse power connected with my threshing machine, by which a sufficient quantity for a large stock may be prepared in a short time, as they will grate apples at the rate of sixty bushels per hour: expense exclusive of horse power from \$15 to 20. Swine eat the sugar beet greedily—they eat them in preference to the turnip; but when the beet is fed in any quantity they should be cooked, as they invariably produce scouring or looseness of the bowels when fed in a raw state; when cooked and fed with a small quantity of meal or bran, hogs thrive and fatten rapidly upon them.—Horses also prefer the beet to the turnip, and when worked hard and grained, one feed of beets per day is of great service, as they are cooling and opening to the system, and keep the animal in a healthy and vigorous condition. Although for horses I prefer the finer varieties of potatoes to any other root, the comparative cheapness of the beet however must induce us to give them the preference on the score of economy. There exists much difference of opinion in regard to the relative value of the different roots, and I have long been anxious to make some experiments that would settle this matter satisfactorily; as most of the opinions that I have seen or heard, either verbal or written, have been mere guess work. With this view last fall procured in New York a lactometer (a glass instrument ten inches long and three-fourths of an inch in diameter, worked off into tenths and hundredths) for the purpose of testing the richness of milk.—With this instrument I have tried the milk of all my cows, and to my great surprise find they give from nine up to twenty-five per cent. of cream—varying sixteen per cent. Only one gives twenty-five per cent., and she, one of the best milkers in the yard, in three successive trials made with her milk, gave the same result—no other cow giving over sixteen per cent.

On the first of January last I commenced measuring the milk of a cow from which the calf had been sold one week previous; she had been fed turnips (ruta бага from before calving up till this time) for four weeks previous, one bushel per day.—Her milk was carefully measured for six successive days: average, ten quarts one gill per day; lactometer filled three times during the week, gave each time fifteen per cent. cream. Feed changed to sugar beet—one bushel per day for one week; commencement of second week, measured—continued for six days (same feed)—average quantity per day, eight quarts and half pint; lactometer filled three times, each time giving eleven and a half per cent. of cream. This experiment thus far was decidedly in favor of the ruta бага, and the appearance of the animal at the close of the beet feeding was not as good as while fed on the turnip. I again changed the feed to turnip, intending to feed one week, and again measure, but a severe and protracted illness in my family prevented any further experiments at this time.

On the 19th of March, I commenced measuring the milk of another cow from which the calf had been taken a few days previous. Her feed for some time had been one bushel of beets per day, and continued for one week, during which the milk was measured—average per day eleven quarts and one half pint; milk tried three times, gave eleven and a half per cent. of cream. Feed changed to turnips; one bushel per day for one week, then commenced measuring—continued six days—average per day ten quarts one gill; milk tried as before, gave nine per cent. of cream. Changed feed to sugar beet—one bushel per day for one week; second week commenced measuring—continued six days—average per day nine quarts one half pint—milk giving ten per cent. cream. In this experiment there is a gradual falling off in quantity in each of the changes of feed, and an increase of richness on resuming the beet feed. The apparent inferiority of the turnips in this case, I attribute to their having been severely frozen in the fall, as a part of my turnips were frozen in the ground, but the ground thawing in a few days they were taken up and buried. Although these experiments are very far from being conclusive, I am rather inclined to give the preference to the turnip. I intend, however, to continue them until I am entirely satisfied—intending also to try the different grains (ground)—feeding in the proportion of the average produce of each



per acre. I shall also procure a thermometer to be used in future. I find these experiments cannot be conducted with perfect accuracy without one, as the quantity of cream depends very much upon the temperature. I filled the lactometer in the winter and hung it in a situation where I should suppose it must have been near the freezing point, and in five hours a perfect separation had taken place—all the cream being upon the surface (none rising after)—the instrument being as before stated ten inches in length. It was filled again with milk from the cow, and hung in the dwelling room over a stove where the temperature was about summer heat, and in fifteen hours no separation had taken place—not a particle of cream appearing upon the surface. This will suggest to those having the management of dairies, the great advantage of setting their pans for a few hours in cold water. I am well satisfied that in nine dairies out of ten, the milk in summer does not yield half its cream. The lactometer and a common tumbler, three inches deep and three in diameter at top, were filled with milk from the same cow, at one time, and placed in a situation where they had the same temperature; the cream all rose to the surface in one as in the other.—This explodes the old and firmly established opinion of the necessity of shallow pans. I have been both gratified and instructed by these experiments, and hope others may be induced to try them, as it is from numerous experiments only that we can arrive at a correct conclusion. I have no doubt but that the quantity of butter made, from the milk in our country, during the summer season, under proper management, may be more than doubled. This is certainly a very important matter both to the producer and the consumer.

*Representation of the Hoe described in the foregoing:*



#### ESSAY ON THE BEST MEANS OF RESTORING DETERIORATED LANDS, CAUSED BY IMPROVIDENT CULTIVATION.

[We have heretofore published two essays on this subject, which received the prizes offered for the best thereon. We have concluded that it is due to the writers of other essays than those to which the prizes were awarded, as well as to our readers, to publish the annexed and two others on file, as experiments and systems adapted to some portions of our country, are not applicable to others. Those which will follow the annexed, are from gentlemen in North Carolina and Georgia, the first of these an old and highly esteemed friend and correspondent.—They will shortly appear.]

MIDDLETOWN, Frederick County, }  
March 11th, 1840. }

*Mr. Sands*—In the late numbers of the American Farmer, you offered very valuable premiums for the best essays on several subjects, connected with the improvements of agriculture, &c. I cannot, sir, proceed without complimenting you upon the selection of valuable premiums with which you propose to reward the successful competitors. I have long thought, that, if instead of money, the Agricultural Societies would offer Agricultural books, Stock, Improved Implements, or fine varieties of fruit trees, their object in giving the premiums, and the interests of Agriculture generally would be more promoted. There are many persons (competitors for prizes) who are either unwilling or unable to purchase valuable books, stock, &c., that would exert themselves to obtain them, were they offered as premiums. Considering the old editions of the American Farmer to contain more valuable information on the subject of agriculture than any work extant, I have long been desirous of obtaining it; but my limited means forbade the hope of ever doing it. Seeing that you offer it, and the volumes of the Farmer and Gardener, for the best essay on the improvement of such soils as have been deteriorated by improvident cultivation, suited to the states of Virginia, Maryland, and the Carolinas, I offer myself as a candidate. You have indeed presented an ample field for commenting on. A person in looking over the exhausted tracts of land contained in those States, will be forcibly reminded of an

anecdote of an Ex-Governor of Maryland, who is an excellent farmer. Being upon a Jury valuing the land which the Washington Branch of the Baltimore and Ohio Rail Road was about passing through, and being in one of the poorest tracts of that very poor country, he turned to some of the farmers who were present, and observed,—"Gentlemen, your forefathers appear to have taken the cream off your soil, and left you the skim milk. But I hazard the bold assertion, that there is not a single acre of this land, but what can be improved so as to be worth an interest of \$200 per acre annually." The Farmers who are settled upon these tracts will doubtless look incredulous, and ask, how can this be done? I answer briefly, by saying, good cultivation: in this is embraced, manuring, draining, and a proper rotation of crops. I will begin with the first of these items, and make such remarks as reason and experience will justify.

*Manuring.*—There are few, if any districts in those States, but what possess resources in themselves that may be applied to the improvement of the soil; for instance, lime and marl exist in abundance; but these, particularly the former, act as stimulants, and there is more need of animal and vegetable manure to supply those properties which bad management has exhausted. Doubtless every farmer knows that animal manure will improve the soil, but will ask how it can be obtained in sufficient quantities. This I will try to answer directly. In the interim, let them follow the injunction of that excellent farmer, William West: if you cannot make ten acres good, make five; if not five, make one—at any rate, whatever you do, let it be done well. This I well know will be a slow way of improving large farms; but let those parts of it that you cannot manure in this way, be improved by ploughing in green crops—Clover, oats, Indian corn, and buckwheat, are the principal crops that are used for this purpose. Of these clover ranks first; but there is much land too poor to bring it in sufficient quantities to do any good. Such lands should be ploughed as early as possible in the spring, and sown with oats, at the rate of two and a half bushels to the acre; when the straw is turning towards maturity, they should be turned in with a chain prefixed before the share of the plough, and another crop of oats, or buckwheat, turned in before frost. If the ground be very poor, this process ought to be repeated another season, or Indian corn may be turned in, and lime spread at the rate of 50 bushels to the acre, if shell, or 25, if stone lime. I think this quantity is best for land that has never been limed, but the application must be repeated in three or four years; at any time, 50 bushels is quite sufficient for ten years. After ploughing in the last crop of green manure, and applying lime, you may sow wheat, or oats and clover in the spring. I think oats the best, for the green crop is apt to make the land too spongy and light, rendering it more liable to be thrown out by the frosts. If the farmer thinks he ought to have more from the land to repay him for his labor and expense, he can put it in corn, and then in grain and clover.—Those who live in pine districts, can add much to the fertility of the soil, by cutting small branches of the green pine, and ploughing them in, or what is better, putting them thick upon the surface of the land, and letting them remain two years, or until the leaves fall, and then plough them in. Cedar will answer, but not as well. As a general rule, shading land is always beneficial. The cow pea is also used, but I am not much acquainted with it. Before proceeding farther, I will state the best means of making and applying manure. There are few farmers conscious of the quantity of manure that may be made with a little extra attention. 1st. Make your barn-yard upon level ground if possible; the bottom of stiff compact soil, if not naturally so, it should be made so: let it be covered six inches thick with good soil, such as contains grass roots, and other vegetable matter, is the best—that from swampy ground, is very good. Let leaves be hauled and spread over—feed your cattle on this from November until May, if you have food sufficient. In good land there is always a quantity of rag weed which comes up after wheat and rye. This, if cut when green, and hauled to the yard, will make a large quantity of excellent manure by the ensuing spring. All weeds should be cut before going to seed, and put in the yard to rot; let your yard be concave, so as to prevent the liquid from escaping. In case of much rain, and the yard becoming flooded, more leaves or straw should be added, and some good mould occasionally. All hog-pens should have a yard proportionate to the number of hogs. Let this be well supplied with weeds, leaves, potato tops,

&c., with a few loads of soil; you may, if you think proper, add the long strawy manure from your horse stable. To make hogs root, scatter a little corn over the yard occasionally. This will be the best manure made upon your farm. Those who keep sheep, can make a great deal of manure by simply making a pen in their pasture, under a tree where they resort for shade; keep the bottom covered with leaves or straw; when the pen gets foul, scatter a few loads of soil over it, to keep it sweet: your sheep will resort to it in warm weather five or six hours during the heat of the day, and when the weather becomes cooler, you can drive them in at night.—The pen may be made in the fashion of worm fences. This will add to your manure heap considerably, without much labor or expense. Sheep manure is one of the best, but it is generally lost to those farmers who let their sheep run out. Here is also another plan, which the most of farmers neglect, viz: Dig a hole in some place convenient to, but out of sight of the house; let this be filled with the rubbish, old grass, dust, &c. that is constantly collecting about your out-houses, yard and garden, the manure of fowls, scrapings of the wood-yard, &c.: to these may be added the hair that is scraped from your hogs in killing, which is an excellent manure.—When you have your hole filled, pour on all your old soap suds, dirty water, chamber-ley, &c. By this means a large quantity of excellent compost can be procured, which apply to your grain and grass. If lime can be obtained, a fine compost may be made as follows: Collect dirt from your ditches, road-sides, baulks made in ploughing, and in fact any thing that contains vegetable matter—make this into a flat heap, and add lime, fresh from the kiln, in the proportion of 25 bushels to 100 loads of soil. To the above may be added all kinds of weeds. This will be found as effective as stable manure. *Application.*—There are many different opinions as to the state in which manure should be applied—whether in a fermented or unfermented state; ploughed in or put upon the surface. I will briefly state my own experience: All calcareous substances have a tendency to sink; therefore they should be applied on, or as near the top of the soil as possible. I will here remark, that lime should never be applied to a soil destitute of vegetable matter, except in form of compost with earth; it may be applied as an ameliorator of the soil; in this case it should be applied three or four years before ploughing. If the soil is stiff, I would apply it in an unfermented state, ploughed under for corn or potatoes; to be ploughed to the surface as soon as the crop is taken off. This method will afford the soil an opportunity of imbibing all the gas, at the same time preventing the liquid from sinking. If the ground be light and sandy, the manure should be applied to the soil in a state called muck, or about three-fourths fermented; without the sub-soil is very compact, the liquid will sink, and the effects will last but a short time. If the manure is left in the yard whilst fermenting, it should be covered with soil. I have perhaps taken up too much time on the subject of manure, but as it is the most important to the farmer of poor soils, I hope I shall be excused.

*Deep Ploughing.*—This is absolutely necessary to make farming profitable for any length of time, however rich the ground may be; plants can never arrive at perfection unless the soil is deep and loose—I do not mean that the ground should be trench ploughed at once, (as some writers recommend,) as that would put back the improvement many years; but let the farmer increase the depth of the soil, as the means of improvement increase.

*Draining.*—I do not mean to enter into a full description of this indispensable process, but shall make a few remarks to convince those who have wet soil, and wish to improve it, of the necessity of draining. There is much land on many farms, which, if well drained, would double their original value. No manure will be found to act very effectively, if the soil or sub-soil contains too much water. Many farmers think draining necessary only upon swampy or marsh land, where the water is apparent; but there are many other soils which it would benefit much, viz: a persimmon soil. The latter part of July and the month of August is generally the most suitable time for the purpose, both as it regards leisure time and the ground being in a suitable condition. If the ground is so level that you cannot find the lowest part to conduct your drain through, a Surveyor ought to be employed. Covered drains are generally the best, though at first the most expensive. Stone is the best for the purposes



of the common farmer; where it cannot be obtained, brush will answer. Draining file is better than either of these, but it is more expensive, and harder to be obtained. A full description of the best modes of draining, can be found in the American Farmer, Cultivator, or any other agricultural periodical.

**Rotation of Crops.**—I see there is a premium offered for the best rotation of crops; therefore I shall make but a few remarks on this subject. In no case should a farmer take more than two crops of grain off thin land before putting it down to grass, and whatever the rotation may be, plough in a green crop where practicable, instead of an open fallow. This will make the soil mellow and loose, and add considerably to its strength.

In conclusion, I beg leave to remark, that there are many ways in which land could be sooner improved than by the plans I have just mentioned; but I have given the cheapest and easiest plan for those who are deficient in means. Being more accustomed to handle the plough and hoe than the pen, I am aware that the directions I have given, might be put in better form, to appear to advantage; but I leave it to the committee to make such disposal of it as to them may seem best.

Very respectfully, COLUMBUS McLEOD.

For the American Farmer.

**HARD TIMES—WHO TALKS OF HARD TIMES?—Tavern bill for three gentlemen.**

1841 April 16, To dinner, supper and lodging.	\$6 00
" To Brandy 75c, Stationary \$1.50.	2 25
" To Whiskey 75, Cigars 6.	81
17, To Champagne \$2, extra dinner \$1.	3 00
" To 3 extra Teas \$1.50, Corkage \$5.	6 50
" To use of Parlor.	6 00
" To 1 day's board.	9 00
	\$33 56

The farmer who can't get a dollar for his wheat, nor more than half of it for a bushel of corn—whose cattle are dying for want of provender, and whose ploughs are not yet in motion, in consequence of the wet weather, though the time for planting has nearly passed—he may be excused for lamenting the hardness of the times, tho' to use a vulgar saying, "there is no use in crying over spilled milk." It would seem by the perusal of the above "bill of particulars," of a tavern bill, no: a thousand miles from the great metropolis where wise men rule the destiny of this great nation, that there must be some exception to the hardness of the times—though those who often pay such bills, must eventually see hard times, or handle very long purses. There are cases where legal regulations are so often violated and laughed at, that by common consent they come to be considered as *dead letters*—Such is the case with legal restraints upon *hack rates*, and *tavern rates*. Not long since we got into a nice looking hack at the corner of Market and Calvert-streets, and shewing the driver twenty-five cents—*rale hard metal*—told him to drive up Market-street until he drove out that. On getting to Liberty-street, he pulled up, but at last consented to go as far as Howard, and there swore he would go no further—that the service performed was too much for the blunt we had given him—and this too under legislative restrictions, enacted under much excitement, and loud complaints against their exorbitant and arbitrary exactions.

The tavern bill at the head of this, may require some explanation. Three gentlemen, renowned for the exquisite delicacy of their taste in such matters, stopped at the Hotel, and being about to make a large purchase of choice wine from Mr. Cazenove in Alexandria, where the purest wines are to be had on the best terms, they ordered five bottles of *their own wine*—specimen bottles—to be tasted. —For this it will be seen that "mine host" charged them \$5 "for corkage"! that is, to make the matter intelligible to our agricultural friends, one dollar for the *privilege of draining each cork*!

We imagine we can see Johnny Crappeau laughing and shrugging his shoulders when he sees how Brother Jonathan is *humbugged*! What a *but* does Louis Philippe make of him. We drink thousands of butts of his wine, on which no duty is paid, while his government is in a measure supported by a heavy tax on our tobacco, and not a frog-eater in the great Empire is allowed to take a pinch of it without being made to *pay through the nose* for it! Did two civilized nations ever before submit quietly to "snuff oppression" or to "chew the cud" of imposture, monopoly and taxation! Well, we live in an age of light and of "progress!"

Old Mr. P\*\*e, of Richmond, a man of matchless humour and drollery, once accompanied Gov. Barbour to see, for the first time in his life, a man of war—one of our large frigates at Norfolk.—Returning to the shore in the ship's boat with the Governor, the frigate fired a grand salute, when Mr. P. gravely lifted up his hands and eyes as if in astonishment and wonder, and slowly exclaimed—"Oh! Governor! are we not a wonderful people!" And so say we—shade of Washington, and Adams, and Hancock, and Jefferson, and body of President Tyler to boot, "are we not a wonderful people!" to encourage the labors and consume the luxurious productions of other nations by free and untaxed admission and use, while they refuse to allow one pound of the products of the American planter's labor to be tasted or smelt until they have levied upon it a tax adequate to the support of a Navy sufficient to enforce upon us a system of commercial exchanges, under which the advantages are all *on their own side*!! Ah! truly we are a wonderful people! whose international motto, all in favor of foreign powers, is, *quid no quo*.

Those wishing to improve their farm stock, are referred to our advertising columns for a large assortment of Cattle, Hogs, &c.

A paper on the culture of the Vine, &c. from an old contributor to our columns, Rev. SIDNEY WELLER, is received and shall appear in our next.

#### USE OF GYPSUM ON CORN.

An esteemed correspondent requests us to—

"Be good enough to state in your (our) next paper, if the gypsum when applied to the hills of growing corn, is to be covered."

In reply to which inquiry, we have to state, that, according to the most approved views of the *modus operandi* of this excellent mineral, it is thought best to apply it to the *surface*, and as this method is the least costly, as a matter of economy, we think it the best way of applying it. The philosophy of its action is, that it is supposed to promote vegetation by its powers of atmospheric attraction. Besides this, which may be considered a mechanical power, we believe that it is highly stimulative in its effects, and that it derives this property from the portion of sulphur which forms an essential part of its composition, an ingredient known by all well informed agriculturists, when applied in proper proportions, to be eminently conducive to the growth of most of those plants which contribute to the sustenance and pleasure of man.

It is a fact, too, which should not be passed by without due consideration, that plaster when spread on *fresh manure*, in small quantities, adds greatly to its value, by facilitating the process of decomposition, and thereby throwing out a more plenteous supply of that *pabulum*, or *geine*, on which plants so delight to feed, and on which they so luxuriantly grow.

We have thus far spoken of *Gypsum alone*; but as a top dressing to the growing plants of corn, we should prefer its admixture with *ashes*, in the proportion of one bushel the former to five of the latter, per acre. If applied either alone, or as last advised, we are very certain that it will add *one-third* to the yield of corn, and is, therefore, worthy of being generally used.

**REPORT ON FARMS.**—In our last we published the report of the "Committee on Farms" of the New Haven Agricultural Society, on the farm operations of Mr. Townsend. We should have noticed at the same time that the first premium of \$20 was awarded to Mr. T. by the committee. In their award they make the following remarks, by which it will be seen the difference between the improvident cultivator and that of a systematic and intelligent farmer, and the subject is particularly commended to the consideration of our friends in this and other southern states:

"Mr. Townsend took possession of his farm several years since, when, by heavy cropping, mismanagement

and neglect, it was entirely worn down and unproductive, and its buildings and fences were in a dilapidated condition. Placing upon the farm a sufficient number of cows to consume its annual produce, he entered at once into the milk business. For several years his profits, above the support of a large family, were expended in reclaiming and improving his soil, in rebuilding his fences, and in erecting and repairing his farm buildings. He early commenced the raising of Durham stock and English hogs, and by careful personal attention and oversight has rendered his land rich and productive, brought his farm into a high state of cultivation, obtained a valuable stock both of cattle and hogs, and receives a large annual income above all his expenses.

"This, as your committee believe, has all been effected with but a small additional outlay of capital, and is in fact the result of a thoroughly digested system adapted to the peculiar circumstances of the location and the character of the soil, and carried into complete execution by the activity, industry, and personal efforts of Mr. Townsend.

It is certainly true that all this might never have occurred had the farm been so far distant as to preclude the furnishing of milk in the city. That circumstance, however, has reference *now* only to the amount of the profits, and does not affect the character of the cultivation. Allowance must also be made for the fact, that Mr. T. possesses outlands for pasture. This also merely increases the receipts of the farm."

The suggestions contained in the annexed paragraph of the Committee's report, are also worthy the consideration of farmers, and to which we have heretofore on more than one occasion called their attention:

"It may well be questioned whether much less progress is not made by our farmers generally, than would result from more attention to accurate accounts of their outlays and incomes, not merely in respect to their business generally, but also in relation to each separate tract and lot of land upon their farms. When their accounts are properly kept, (and they are so kept with far less time and trouble than any person who has never made the attempt would believe,) the farmer, at a single glance, discovers what particular crop, and what precise cultivation of that crop is best adapted to each separate lot and yields him the best return. Statements thus founded upon certain data are entitled to more confidence than those which have for their basis mere belief, since as a general rule crops tell better in the eye of the producer than they do in the half bushel. Your committee are of opinion that this remark applies to the statements they received respecting some of the farms which they visited. In fact, from no one of the applicants, except Mr. Townsend, have they been able to obtain accurate and regular accounts of all the results of the operation upon their respective farms. They however wish it to be distinctly understood, that they do not believe that in any instance there was any intentional over-estimate."

Since the publication of the Report, we have received from Mr. Townsend a description of the Thin Rind Hogs so highly spoken of therein, which will be found on another page; also a list of his Durham stock, any of which he will dispose of at prices mentioned in the list, which will be found in our advertising columns.

**MACHINE FOR CLEANING WHEAT.**—Messrs. Philips and Jackson, of Leesburg, Va. have invented and patented a machine, for the separation of Garlick, Smut, Cheat, or other impurities, from Wheat or other grain, which they highly recommend to millers and others, for its cheapness, and durability, and as being so simple that any carpenter, having seen one of the machines, can very readily make them. They represent the utility of the improvement as having been fully tested by experiments made with garlick in every stage, from that of green and sappy, to light and dry, and the result, in every instance, has been entirely satisfactory. The following is a description of the machine:

"The wheat is effectually separated from the extraneous matter, by means of a strong current of air, produced by the rapid motion of a common mill fan, and conducted through a trunk or flue, made of plank, air tight. This trunk should be the full width of the fan; about a foot deep where it leaves the fan, and contracted to about six inches at the mouth, or point where the wheat passes through. The wheat falls from a revolving screen, upon



an inclined plane, at the lower end of which it passes through a perpendicular aperture to the current of air; as soon as it enters the current of air, the falling mass diverges from a perpendicular line, at a greater or less angle, according to its specific gravity—pure wheat diverging at an angle of about 30, and garlick and all light matter, at an angle of about 60 degrees. The separation having thus been perfectly effected by the action of the current of air upon the surface of the particles of matter falling through it, is preserved by means of regulators, or slides, so adjusted, as to keep the wheat from the impure matter.—Garlick can be separated from wheat only in this way, and smut can be blown out whole, which must be decidedly preferable to any mode of rubbing, by which it is pulverized, as a portion of the dust must adhere to the grain, and thus pass into the flour."

#### COOKING FOOD FOR ANIMALS.

All are aware that grain of almost every kind greatly increases in bulk by steaming or boiling, and this bulk is greatest at the moment the grain is swelled so as to crack or burst its skin. It is also known that cooked food is far more nutritious to animals than that which is uncooked; and many have gone on the supposition that its increase in value for food was equal to its increase in bulk in cooking. This is doubtless a mistake, as the nutritive power of the articles is rarely in proportion to their size, and never perhaps exactly in proportion to their increase of bulk in cooking.

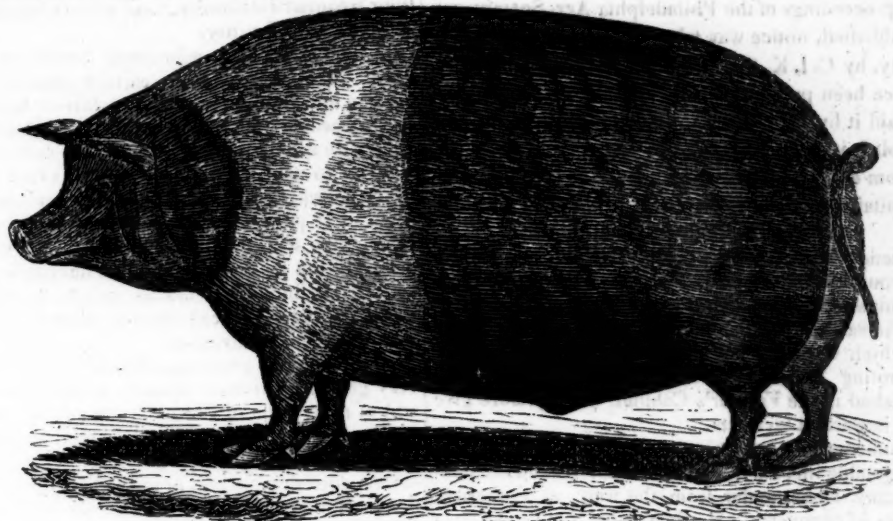
Reaumur instituted a series of experiments to determine the rate of increase in different articles of food most commonly used for animals, and found the result of some of them as follows:

4 pints of oats after boiling filled	7 pints.
4 " barley "	10 "
4 " buckwheat, "	14 "
4 " Indian corn "	15 "
4 " wheat "	10 "
4 " rye "	15 "

In the continuation of his experiments to ascertain the effect of such food on animals, he found that with some of these articles, though the bulk was much increased, the total of food required to satisfy the animal, was the same as if no cooking had taken place; or that an animal that would eat half a bushel of oats dry, would eat a bushel cooked with the same ease. The nutritive power was, however, apparently increased, or the whole of it contained in the grain made available; which, when grain is fed whole or raw is rarely the case. On the whole, he came to the conclusion that when wheat, barley, or Indian corn is used for feeding, it is far more economical to boil or cook these grains, than to feed them in a raw state; but that little is gained on the score of economy, when time, fuel, &c. are taken into consideration, in cooking oats, rye and buckwheat.

In determining the question of economy, much we think is depending on the manner in which the cooking of the grain is performed, whether alone or with other substances, such as roots. Alone, corn is the most improved by cooking of any of the grains, and the value of corn meal for making pork, it has been shown by experiment, is almost double when made into pudding. We have long been in the habit of boiling and steaming potatoes for feeding pigs or making pork. With them, in the early part of the feeding, we incorporate apples, squashes, pumpkins, indeed almost any vegetables of which swine are fond. The grain we use, is ground, and either steamed with the roots or mixed with the hot mass in the vats as it is taken from the steamer. As the feeding progresses, the quantity of meal is increased, until towards the last, that material alone. Corn is decidedly the best grain for making pork; peas and barley are next.—N. E. Far.

**THE SEASON AND THE CROPS.**—The season is unusually backward, more so probably than any one for years past. The wet and cold have greatly retarded the labors of the farmer, in ploughing the ground and getting in his corn and oats. In a general way, the spring operations in regard to these crops, are probably two weeks "behind time." The effect must be, to greatly crowd the other labors of the agriculturist for the current month. In Western Pennsylvania, we have accounts that the wheat crops look thin and unpromising, and that some fields in Washington county had been ploughed up with a view of sowing spring grain. This, however, it is hoped will not be done in many cases, nor without due consideration. When the "growing weather" does at length come, a week or two makes a wonderful difference in the aspect and promise of a wheat field.



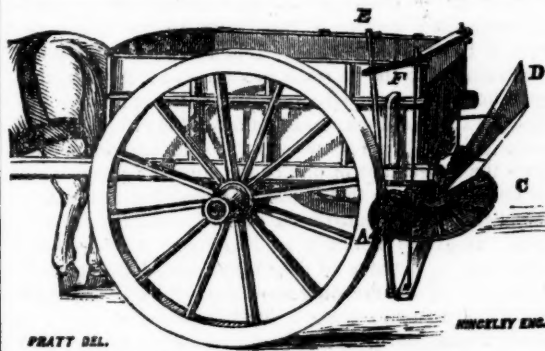
NORFOLK THIN RINED HOGS.

PROSPECT HILL, 2 miles from New Haven, 22d April, 1841.  
*Mr. Samuel Sands—Dear Sir—*The portrait of a Norfolk Thin Rined Hog, fattened by me, and butchered in 1840, which I sent you a few days since, is a fair sample of that breed of Swine when ready for the butcher. There are other breeds that when fattened make excellent pork; they are much sought after, and when obtained, are highly approved. I have myself had some of most of the old and new breeds, have at this time four different breeds, which I think well of: some of them will, being larger bone, (perhaps) outweigh the Thin Rined. Yet, after an experience of twelve years in the rearing of hogs, I must give the preference to this breed; nor am I alone in this opinion. Several persons who have been experimenting in the different breeds, as they have been introduced, have come to the same conclusion: they say that the Thin Rinds are what they want. The bone is small, the skin remarkably thin, the meat fine grained; the pork cuts very thick in the back, they fill up well, and the hams, when properly cured, have a very peculiar sweet flavor, which is said to belong to this breed; and they are ready for the butcher at nine months, and will often continue to thrive until sixteen months old. They do well in the country running in pastures and orchards, and also in the city confined in small enclosures. I have known a nine months hog when butchered, weigh 360 pounds, and one at fifteen months old, to weigh 500 pounds. A sow of this breed that had bred three litters of pigs, and then fattened last fall, and butchered, weighed 574 pounds. Instances like these are not common—They will, I think, on good feed, at nine months, weigh from 250 to 300 pounds, and at fifteen months old, weigh from 325 to 400 pounds. Last spring I sold six pigs to a gentleman in the city, who had them butchered in the fall—The average weight was something over 300 pounds for each hog. Mr. Hyde, the city butcher at New Haven, informed me recently, that in the last eight years, he had butchered over 4000 hogs, and that he gave the Thin Rinds the preference—they opened better than any others. The color is various—some quite light, others spotted, some striped, and some black. I do not wish to recommend the Thin Rined hogs beyond what they should be—It is not necessary for me to do it, to make sale of what I raise: they are often engaged before they come; and I do not fear but the demand will be equal to all that I wish to part with.

Sincerely, your friend,

W. K. TOWNSEND.

Any person wishing to obtain a pair of pigs of the above breed, can be supplied through Samuel Sands, publisher of the Farmer, at \$25 per pair.



CENTRIFUGAL DISSEMINATOR.

For scattering Lime, Plaster, Ashes, Marl, fine Manures, Oats, Wheat, &c.

From one peck to 100 bushels can be scattered per acre, with this machine, with exactness, regularity, and a saving of about one-third over the usual mode of spreading manures and sowing seeds. This machine may be attached to almost any description of cart or wagon. The latter however, is preferable, being higher at the tail than the cart. If a cart is used, the body should be blocked up from the axle sufficiently high to give the disseminating wheel sufficient elevation from the ground to allow it to scatter freely, and not be incommoded by high grass or weeds.

The following directions, with the above cut, will enable farmers to attach this machine to their wagons or carts without difficulty, viz:

1. Place the machine on the tail of a wagon, (or cart,) the cross-piece F resting on the top of the side-boards, and the centre cross-piece under the wagon, minding that the disseminator is set sufficiently forward to allow the hind wheel of the wagon, and the iron pulley A on the driving shaft of the Disseminator, to come fairly into contact, which may be done more correctly by setting the left side of the frame about 3 inches farther forward than the right.

2. When the Disseminator is placed as above directed, let the long iron bolts at each end of the frame be screwed up firmly; the short and long iron braces should next be put on,

the former running perpendicularly through the axle of the wagon, and the latter connecting with it and the centre cross-piece of the disseminator, which will keep all firmly connected, and prevent the machine from slipping back, and consequently from "thoroughing" the pulley A out of gear.

3. Set the top of the hopper D sufficiently back to direct the lime, &c. to the centre of the disseminating wheel C, and confine it in place by the leather strap.

4. The perpendicular lever E is intended to regulate the pulley A, either to press it more closely to the wagon or driving wheel, or to detach it entirely.

5. The usual position of lever E is when set, at the middle notch of the holder that confines it, which position allows the iron shaft of the disseminator the proper incline forward, (about 3 inches from a straight line,) which equalizes the pressure of the cart wheel tire on either side of the pulley A. This pulley is divided in two pieces, and made to slide on the axle so as to counteract the wobble or irregular width of the tire of wheels. The gearing or cog wheels immediately over the centrifugal wheel C, are constructed in a peculiar manner in order to prevent damage to the machine, and an over quantity being spread when turning or backing the horse. In either case the machine is thrown out of gear, and consequently ceases spreading until the horses again move forward.

6. The lime, manure, &c. to be spread, is first put into a wagon or cart, from which it is thrown on the hopper D. Two hands, and a boy to drive, can thus spread 50 to 100 bushels of lime, &c. per acre, or as fast as a horse can walk, spreading the lime, &c. 12 foot wide.

7. The above directions are for scattering manures alone. If plaster or grain is to be sown, it is only necessary to use a different hopper made similar to a common grist mill hopper. The motion of the wagon, and size of the hole at the bottom of the hopper, will regulate the quantity scattered.

Price of the above, with one hopper, \$30  
 " " " two " 35

The above machines can be had of Robert Sinclair, Jr. & Co. Manufacturers and Seedsmen, No. 60, Light-street, or through the Agency of the publisher of this paper.

The frosty weather of last week it is feared has done considerable damage to the fruit and vegetables.



In the proceedings of the Philadelphia Agr. Society, recently published, notice was taken of a paper read before the society, by C. L. K. Smith, on the subject of Mildew; it has since been published in the Farmers' Cabinet, and we had laid it by for insertion, its length not permitting us to publish it immediately. We have since, however, taken from an exchange paper, the following abstract, which contains the substance of Col. S's. theory:

#### ON MILDEW, BLIGHT, OR RUST.

Our friend Col. Kenderton Smith, having examined into this scourge of the farmer's interests, believes after mature examination he has discovered the cause of, and remedy for the same. We cannot find room for the entire article, which was read before the Philadelphia Society for Promoting Agriculture, on the 7th of April, 1841, and published in the Farmer's Cabinet, we therefore give the most important extracts.

He commences by informing us of the chemical properties of vegetable life, viz: Heat and moisture, and the misfortune many labor under from the want of a practical knowledge of chemistry. He then states that in the year 1838, I suggested to the Society the expediency of inquiring into the advantages or disadvantages of cultivating grass with winter grain, or of sowing grass seed upon land previously sown with wheat. I did so, because, as I stated at the time, I had observed that my wheat, in certain parts of my field, where there was no grass, was of excellent quality—whilst in other parts of the same field, mildew prevailed, and the grain was shrunken and worthless.

After suggesting to various individuals his views in regard to sowing wheat with, and without grass seed, he found as one of an examining committee appointed by the Agricultural Society, that wheat sowed without grass seeds yielded invariably a good crop, whilst seed sown or intermingled with grass seeds, produced a blighted or mildew crop. Summer fallows or land ploughed in the spring, and reploughed in the fall previous to sowing, he contends will produce crops not mildewed.

Since it has been generally known that I presumed to have discovered the cause of mildew in wheat, I have conversed with a number of persons, particularly farmers, who were curious to know my views on the subject, and they have in every instance, except one, admitted that they could not recollect a single crop which, being sown with wheat alone, and being free from grass and weeds, was affected by mildew. A young farmer from Bucks county, from whom I have obtained some of my supplies during the past winter, called upon me as usual a few days ago. In the course of conversation (for I seldom lose a favorable opportunity to have a little chit-chat with a farmer) I mentioned that I thought I had discovered the cause and the remedy for mildew. He expressed some surprise, but when he heard my views, said at once that he had no doubt it was so, as his father never sows grass with his winter grain, and always has good crops. He then spoke of individual instances of mildew and good crops in his neighborhood, and the customary mode of cultivation, and finally said, that he was fully convinced, from his own observation and experience, that my views were correct.

And then concludes by observing that the system heretofore pursued by our farmers is wrong in many respects; the stubble of the grain, under the present plan is lost. If ploughed under, the straw, &c. would render the land still more fruitful and productive. Ploughing it after harvest would prevent it from being overrun and impoverished by ragweeds and other noxious vegetation, and sowing it with grass seed, even without manure, after a second ploughing, allowing sufficient time to intervene for the vegetable matter turned under to rot, and the grain which is scattered from the crop at harvesting to grow some two or three inches high—say about 10th of October—would insure a more abundant crop of hay for the ensuing year, and greatly enrich and improve the soil.

The following is a re-publication from an English work, which we copy from a valuable periodical in New-York styled the "Rural Library."

#### GRASSES.

The most important of the herbage plants of this and other parts of Europe are the grasses. Of these, however, many are of low, nutritive and productive powers and in cultivated grounds are held to be weeds. But some of the less valuable kinds require attention on account of

their frequent occurrence, and their adaptation to soils in the scale of fertility.

1. *Anthoxanthum odoratum*, Sweet-scented Vernal-grass. This is one of the earliest grasses of the spring, coming into flower about the middle of April, and ripening its seeds by the middle of June. It contributes mainly to give that delightful fragrance to new-mown hay, so familiar to us. It grows on almost every soil; it is not of itself remarkable for its nutritive qualities, nor does it seem to be peculiarly grateful to cattle, although eaten by them along with their other herbage. Its value is chiefly derived from its early growth, its hardiness and its property of continuing till late in autumn to throw forth its flowering stems. It can scarcely form the subject, in any case, of useful cultivation.

2. *Alopecurus pratensis*, Meadow Fox-tail. This is a very generally diffused species, being a native of Britain and of most parts of Europe. Its herbage is held to be nutritive, and it appears to be grateful to ruminating animals. It is a very early grass, is perennial, and constitutes a considerable part of the richest of our meadows. It does not attain its full growth for several years, on which account it is not well suited to the alternate husbandry. The young plants, too, are so frequently the prey of insects, and the seeds are often so defective, that only an inconsiderable portion of them can be calculated on arriving at maturity. Notwithstanding these things, this plant, on account of its early growth, its permanence in the soil, and the quantity and value of its produce, deserves to be cultivated when the land is intended for perennial herbage.

3. *Phleum pratense*, Meadow Cat's-tail. This species is a native of Britain, though it was first introduced into notice from Carolina. It is called herd-grass [and timothy] in America, and is greatly valued there as an herbage and forage plant. It produces abundance of foliage early in spring, and may be cropped till a late season. There is none of the grasses more easily cultivated. It is not a peculiarly good hay grass, from the wiryness of its stem, and the shortness of its aftermath. But still it may be profitably cultivated for this purpose in conjunction with other grasses, and deserves to be cultivated in an especial manner when the object is to produce a sward of permanent herbage, or even when the land is to remain only one year in grass.

4. *Agrostis alba*, Marsh Bent-grass, is one of the species of *Agrostis* which grow on moist soils, and which, having generally creeping roots or stolons, from frequently troublesome weeds. It sometimes passes under the name of Black Couch-grass. When it takes possession of wet, clayey soils, its roots penetrate to a considerable depth, and, from their vivacious properties, it is very difficult to extirpate them. In more favorable circumstances the marsh bent-grass grows with broader leaves, and assumes the appearance of one of the superior grasses. It was under this form that it was introduced to notice as a beneficial object of cultivation under the name of Fiorin Grass. It grows naturally in the moister soils, and extends itself, sometimes to the extirpation of less powerful grasses, by its creeping roots and stolons. Its best property as a pasture grass is the late period at which it rises in the season, affording food when other grasses have ceased to grow, and in spring also it affords an early herbage. These properties may render it sometimes expedient to cultivate this plant in small quantity, mixed with other grasses, when the end is perennial herbage, and especially in the case of irrigated meadows; but otherwise it does not possess properties to entitle it to be ranked amongst the superior grasses.

5. *Holcus lanatus*, Meadow or Woolly Soft-grass grows readily upon all soils, and especially the peaty. It produces a profusion of light seeds which are easily dispersed by the wind, from which circumstance, when it is once introduced the soil is with some difficulty freed from it. It is disliked by cattle, and refused by them when other herbage can be obtained. Nevertheless, the woolly soft-grass is not without its useful properties. It is superior to the heaths and some of the bents of peaty lands. Its easy propagation, therefore, on such soils is in this respect beneficial, that a pasture grass can be substituted for the inferior natural produce of the soil. Although the woolly soft-grass may therefore be sown on the poorer class of peaty soils, it ought to be excluded from those on which better kinds can be produced.

6. *Holcus mollis*, Creeping Soft-grass, is frequently mistaken for the woolly soft-grass, but is readily distinguished from it by its awned florets and creeping root.

The herbage of this plant is soft and tasteless, and apparently more disliked by stock than that of the woolly soft-grass. It is a troublesome and impoverishing weed, which it should be the study of the husbandman in every case to extirpate.

7. *Arrhenatherum avenaceum*, Common Oat-like grass, is the *Avena elatior* of Linnæus, and the *Holcus avenaceus* of some other botanists. It is a coarse though a productive grass, growing rapidly after being cropped, and producing an early and plentiful herbage in spring. It has been found upon analysis to contain more of bitter and saline matter than other pasture grasses, and hence it has been inferred that it ought not to be cultivated without a large admixture of other grasses. The juster inference would be that it should not be cultivated at all. The roots, which are fibrous in the moister soils, become bulbous in the drier, and then the plant is a troublesome weed, difficult to be extirpated.

8. *Poa aquatica*, Reed Meadow-grass. This species grows in situations favorable to it to a great height. It is common in flat and fenny countries, on the banks of rivers and the margins of pools. In the fens of Cambridge and Lincoln, great tracts are covered with this grass, which not only affords rich herbage in summer, but abundant crops of hay for winter forage. It contains a larger proportion of sugar than the best herbage grasses, and is accordingly much relished by pasturing animals. It is, however, too purely aquatic in its habits to allow of any extension of its culture. It is well suited to the swamps and fens where it grows naturally, but can scarcely be cultivated beyond them.

9. *Poa fluitans*, Floating Meadow-grass. This plant is found in ditches, stagnant waters, and other moist situations, its stem growing from one to three feet high. Its seeds are the manna of the shops, and are gathered abundantly in Poland, Russia, and some parts of Germany, where they are used as food. It is found in New Holland, a country abounding in vast marshes. It has been thought by some that it might be cultivated in this country. It is to be believed, however, that it is rather too aquatic in its habits to admit of cultivation, except in cases where it could be partially covered with water.

10. *Poa annua*, Annual Meadow-grass. This species has an annual root. It continues to flower throughout the spring, summer and autumn, and sometimes even in winter. It rarely attains, even in the most fertile situations, a height of more than 10 or 12 inches. It is, however, the most prolific of all the grasses. The only case in which we can suppose this species deserving of cultivation, is when other grasses had died out, and when, by being sown on the sward of these grasses in spring or autumn, the annual meadow-grass might be expected to afford a growth of herbage in a few months.

11. *Poa trivialis*, Rough-stalked Meadow-grass, is one of the superior pasture grasses, forming a part of our richest meadows. Its root is fibrous, and its stems are roughish, and hence its name. Rough-stalked meadow-grass is nutritive, and greatly relished by pasturing animals. It requires, however, situations somewhat sheltered and moist. In dry and exposed ground its produce is inconsiderable; and this circumstance must determine, in certain cases, the expediency of cultivating it.

*Poa pratensis*, Smooth-stalked Meadow-grass. This species is distinguished from the last by its having a creeping root, and by the sheath of the stem being smooth to the touch. It comes early, but, in this respect, it is equalled by other grasses believed to be more productive, and after being cropped in summer it grows slowly. It is inferior to the last mentioned species, and it may be questioned whether it deserves to be reckoned amongst the superior pasture grasses.

13. *Poa fertilis*, Fertile Meadow-grass, is a native of Germany, where it is esteemed one of the superior pasture grasses. It grows in wet situations, and near rivers. It is said to perfect its seeds abundantly. Experiments, however, are yet wanting in this country on the value and use of this species.

14. *Dactylis glomerata*, Rough Cocksfoot, or Orchard-grass. This is a coarse but very nutritive grass, of early and rapid growth. Although a native of Britain, its seeds were introduced from Virginia about the year 1780. It was not, however, cultivated till many years afterwards. It is justly held to be amongst the superior pasture grasses, and is suited for forage as well as for herbage. It is more nourishing in spring than in autumn, and requires to be closely cropped; for, when suffered to grow, it rises in tufts and patches, and loses greatly of its nutritive



properties. Oxen, horses and sheep, eat this grass eagerly. Cocksfoot should always be sown in combination with other grasses, as the rye-grass, the meadow-fescue, and the other finer grasses.

15. *Cynosurus cristatus*, Crested Dog's-tail, has a wide range of soils and situations, and is plentifully produced in most of our natural pastures. It flowers somewhat late, and its culms, when it perfects its seeds, become hard and wiry, and are rejected by pasturing stock. Although slow in arriving at perfection, late in flowering, and not very productive, this grass, on account of its easy culture and the thick sward which it tends to produce, has been recommended for cultivation. This, however, should only be on inferior sheep pastures, for the plant is not to be regarded as one of the superior grasses.

16. *Festuca ovina*, Sheep's Fescue-grass, is one of the smaller grasses growing on dry, light, elevated grounds. It is entirely an herbage plant, and is only referred to here because botanists have spoken of it with approbation. It is a grass, however, which there can be no object in cultivating in arable soils in this country. The business of the farmer is to stock his pastures with the best grasses which they are capable of producing: inferior kinds will quickly tend to occupy the ground.

17. *Festuca duriuscula*, Hard Fescue-grass, is likewise one of the small grasses suited to the pasturage of sheep. It prevails on the lighter soils, but is found also in good natural pastures. It is superior in size to sheep's fescue; but yet it is not sufficiently productive to deserve especial cultivation.

18. *Festuca loliacea*, Spiked Fescue-grass, grows in moist meadows, and is said to be very productive; but experiments are yet wanting on its value as an agricultural plant. It rarely with us perfects its seeds, which, however, would not be an objection to its cultivation were it otherwise useful, since seeds in sufficient quantity might be obtained from other countries.

19. *Festuca pratensis*, Meadow Fescue-grass, is justly ranked amongst the superior grasses. Although a large, it is not a coarse plant, and does not, like some of the other large grasses, form tufts in growing. The leaves are succulent, and readily eaten by the larger pasturing animals. Its root is perennial and fibrous. It is found in the natural meadows of our richer, clay-land vales, and may form a part of the pasture of all land of tolerable quality, laid down to perennial herbage. It requires, however, a longer time to arrive at its full maturity than some others of the superior pasture grasses, as the cocksfoot, and is, therefore, less suited than they to the alternate tillage.

20. *Lolium perenne*, Perennial Darnel, or Rye-grass, is one of the most important of the gramineous herbage plants. It is the most generally cultivated of the herbage grasses in Europe. This circumstance it owes to its early maturity, to its wide range of temperature and soils, and to the abundance and facility with which it can be raised from its seeds.

However valuable the rye-grass from these qualities be, it wants certain properties which others of the grasses possess, and a good permanent meadow therefore will best be procured by imitating the natural process of mixing grasses together. In this manner, the different kinds coming into flower at different periods of the year, will better afford a succession of herbage throughout the season.

The characters of this plant are greatly modified by the effects of climate, soil and culture, and this has given rise to numerous distinctions founded on the supposed qualities of the different sorts. The value of these to the agriculturist is mainly determined by the number and broadness of their leaves, their permanence in the soil, and the vigor with which they grow.

There are two kinds, however, which must be distinguished from each other in practice. The one flowers for successive years, and is therefore termed perennial; the other flowers in the second year, and, having borne its flowers, the roots decay. This is, therefore, a biennial plant, but it is generally termed annual rye-grass. It is more productive than the perennial kind in the year after being sown, and hence, when the object is to retain the land only one year for a crop of herbage or forage, the shorter lived variety is to be preferred. There are no means of distinguishing the biennial from the perennial kinds by their seeds alone, and great losses have been frequently sustained by mistaking the one for the other, when the purpose has been to keep the land for several years in grass. When the land is to remain for more than one year in grass, the perennial kinds must be sown.

Rye-grass should always be sown with some of the clovers. Mixed with the red clover, as will be afterwards seen, it is well suited for hay. No other mode has yet been discovered equal to this for producing a crop of hay with certainty and economy, as the experience of farmers in the north of England, in Scotland, Flanders, and other parts of Europe, testifies.

21. *Lolium italicum*, Italian Rye-grass, is cultivated in Italy and other parts of Europe. It is probably in most cases of biennial duration, but by being cropped or mown before flowering it may remain for several years in the ground. It reproduces itself freely from its seeds, which are scattered immediately on their becoming ripe. It grows with greater luxuriance than the common rye-grass, and its nutritive properties may be inferred from the eagerness with which it is eaten by animals. It appears to be a very valuable herbage plant; but farther experiments are yet required to show how far its permanence in the ground can be depended on.

It thus appears that the native grasses which experience has fully shown to be of the superior class, and suited to cultivate, are:—

1. *Alopecurus pratensis*—Meadow Foxtail.
2. *Phleum pratense*—Meadow Catstail.
3. *Festuca pratensis*—Meadow Fescue.
4. *Poa trivialis*—Rough-stalked Meadowgrass.
5. *Dactylis glomerata*—Rough Cocksfoot.
6. *Lolium perenne*—Rye-grass.
7. *Lolium italicum*—Italian Rye-grass.

BRING FLOWERS.—The following is an extract from Mr. Colman's Address before the Agricultural Society at New Haven:

"The taste for flowers, every where increasing among us, is an omen for good. Let us adorn our parlors, door ways, and roadsides, with trees and shrubs, and flowers. What a delight do they give to the passer-by? What favorable impressions do they at once excite towards those who cultivate for their own gratification, and find, after all, their chief pleasure in the gratification which they afford to others? What an affecting charm, associated as it is with some of the best sentiments of our nature, do they give to the sad dwelling places of the departed and beloved?

The moral influences of such embellishments deserve our consideration. I do not mean simply the substitution of such refined tastes and pursuits in place of the gratification of the lower appetites. This is no small matter. But another influence should not be overlooked.

Every one familiar with human life, must be sensible that mere personal neatness and order are themselves securities of virtue. As we cultivate these habits, and in respect to our residences and the things and objects around us, make a study of rendering them orderly and beautiful, and adding to them the highest embellishments of art, our own self-respect is greatly increased. Next to religious principle nothing operates more than self-respect, as a safe-guard of virtue and a stimulant to excellence."

#### BALTIMORE MARKET.

**Sugar.**—At auction on Tuesday the cargo of the brig Frances Jane from Porto Rico, consisting of 138 hhds. was offered, but only 35 hhds. were sold at \$6.50a\$7.05. At the same time 185 hhds. New Orleans were sold at \$5.80a\$6.15; and 30 hhds. Cuba Muscovado at \$6.85a\$8. We note sales by private contract of 200 to 300 hhds Porto Rico at \$7a\$8.25.

**Hemp.**—A parcel of Kentucky Hemp has reached the market, and a part of it has been taken during the week at 8 cents at which price the article is firm.

**Molasses.**—Sales of New Orleans in hhds. and tierces at 26 cents, and in hhds at 27 cents. A sale of common Matanzas at 18 cts. Good Cuba will bring 20 cts.

**Tobacco.**—The transactions in Maryland during the week have been pretty large. Sales of middling to good qualities have been made at former rates, but the prices of inferior and common have given way, and we reduced our quotation for these descriptions.—We quote inferior and common 4a\$4.50; middling to good 5a\$7.50; good 8a\$8.50; and fine 9a\$13. There is some inquiry for Ohio, but the transactions are not large. We quote common to middling 5; good 5.50 a \$6.50; fine red and wrappery 8a\$12; prime yellow at 7.50 a \$10, and extra wrappery 15 a \$17. The inspections of the week comprise 634 hhds. Maryland; 71 hhds. Ohio; 65 hhds. Kentucky; 11 hhds. Virginia; and 4 hhds. Pennsylvania—total 785 hhds.

**Wool.**—We note a sale of coarse common washed Wool at 31 cents. In other qualities there has been nothing done and prices are without change.

**Cattle.**—The supply to-day was not so large as for several weeks past, but prices have undergone no change. All that were offered, amounting to about 150 head, were taken by the city butchers at \$7 to \$8 per 100 lbs. for good to prime quality. We continue to quote Live Hogs dull at \$5a\$5.25 per 100 lbs.

**Flour.**—We are not advised of any transactions in Howard street Flour to-day except at retail. At the close of last week several sales of good common brands were made from stores at \$4.37½, and the article would not command more now, although holders are asking a higher rate. The market continues very languid. We continue to quote the wagon price at \$4.37½.

City Mills Flour is held at \$4.62½ but we hear of no sales. On Saturday a sale of 300 bbls. Susquehanna Flour was made at \$4.50. To-day the price declined, and sales of two parcels, comprising 1800 bbls. were made at \$4.37½ on short credit.

**Grain.**—No Pennsylvania Wheat in market.—We quote fair good to prime Md. reds at 85a90 cts.

Sales to-day of yellow Corn at 50 cts. and of white at 47. Sales of Md. Oats to-day at 35 cents, and of Virginia at 30 a 33 cents.

**Provisions.**—The market continues without animation and prices nominal at last week's rates.—We quote Baltimore packed Mess Beef at \$12.50; No. 1 at \$10.50; and Prime at \$8 to \$8.50. The stock of Pork continues very heavy and without sales worth naming. We quote Mess at \$12.50, and Prime at \$10.50, both nominal. We are advised of a sale of Baltimore cured Hams Bacon to-day at 104 cents. We continue to quote Western assorted at 6 to 64 cents; Hams at 7 to 9 cents; Middlings at 6 to 64 cents; Shoulders at 5 to 54 cts. and Joles at 4 cents. There is nothing doing in Lard. Holders of No. 1 Western are firm at 8 cents. Further large sales embracing several hundred kegs of Western Butter have been made at 6 to 64 cts; in mixed lots of No. 2 and No. 3.

At Richmond, on Friday, Flour was \$4a4½; City Mills held at \$6. Wheat 10a11½c., according to quality, actual sales. Corn 50a55c, 55c for small parcels.—Sales of Oats at 32c to 2s per bushel. Receipts of Tobacco large, with an evident improvement in quality—the demand for all useful qualities active, at steady prices. Lugs 4,30a5; manufacturing 5a6; common leaf 5a7½; middling 6a8½; good 8a10; fine 10a14; extra manufacturing 10a16½.

At the Brighton (Boston) Cattle Market, on Monday, prices further advanced for Beef Cattle—one or two yoke extra sold for \$7.75; first quality \$7.25a7.50; second quality \$6.50a7; third quality \$5.75a6. Sales of Working Oxen at \$20, 95, and \$100.

At Philadelphia, April 30.—Sugars. The stock has increased this week but holders are firm and look for an advance. Sales Porto Rico Molasses at 28 cents, good Cuba at 25a36 cents a gallon. Domestic Produce is rather more firm. Considerable sales have been made of Flour at \$4.50, chiefly for export. Bye \$2.87½; Pennsylvania Corn Meal in bbls. at \$2.50, hhds. \$12. Grain is without much alteration. Corn moves quick at last week's prices. The market has been cleared of Lead at prices not made known. Tobacco is rather drooping, and supplies coming in more freely. Cotton firm with light stocks. The Cattle Market this week was tolerably well attended, and prices of Beeves \$6a8; other kinds, no material change since last week.

At New Orleans, on the 24th ult. the quotations of Cotton were—Liverpool Classifications.—Ordinary 9a9½; Middling 10½; Middling Fair 10a10½; Fair 11½; Good fair 11a12; Good and fine 12½. The sales of the week were 2,600 bales. The Price Current says:—"The conviction that former estimates of the extent of the crop will prove much too great, has inspired buyers with great confidence in the article, and the cheap freights and the high rates of Exchange now current, have also tended to encourage purchasers; to which causes may be attributed the activity in the market during the past week. The demand has been confined chiefly to the inferior and middling qualities; there has also been a good inquiry for the French markets." Sales 600 hhds. Sugar at 4a6½, and holders less firm. Molasses declined to 19a20c. Flour 4.15a4.20, and arrivals fair. Heavy receipts of Pork, Mess \$12; prime \$9; N. C. 10½; P. O. 8 and bulk 3a 3½. Lard has declined under very large receipts and sold at 5a7c, as in quality. Bacon dull and stock daily increasing—hams 7a7½c; sides 5a6; shoulders 4c. Corn 38a40c.

At New York, Saturday, 2 P. M.—The sales of Cotton are 1400 bales, at steady prices. Fair Uplands 10a11c. Stock about 50,000 bales. Nothing new in Flour. A sale was made of northern Corn at 52c wt. at the boat, or 54c delivered. Rye 54c. delivered.

#### WOBURN, BEDFORD & BIFIELD PIGS.



The subscriber will have in a few weeks, ready for delivery, some of the litter of the sister to the Bedford and Bifield barrow which was exhibited at Washington on the 4th March, which was raised in this city by Mr. Geo. Shuter, and weighed at 2 years old 1905 lbs. These pigs are by Mr. D. Stuart's noble Woburn boar. Price deliverable in this city \$25 per pair, cage and feed if sent away extra. m 5 S. SANDS.



## VALUABLE DURHAM STOCK.

The subscriber is authorized to dispose of the following valuable Stock, and the opportunity offers to gentlemen desirous of improving their stock, of making a selection, which is not often presented.

## COWS.

Favorite, 11 years old—Lady Washington, 9 years old  
Beauty, 9 do. Young Favorite, 7 do.  
Young Lady, 7 do. Rosey, 6 do.  
Lilly, 5 do. Moss Rose, 3 do.

The pedigrees of the above will be given in full to purchasers—they were bred by Wm. K. Townsend, Esq. of Connecticut, who says they "will compare with the same number of Cows in any section of the United States, for beauty, size and quantity of milk, and all their stock is fine." They will be sold at \$300 each, deliverable in this city.

## BULLS.

No. 1. Lord Durham, calved 20th April, 1828, white spotted with red, and nicely matched all over; he is a splendid bull, large size, is from Beauty, by Lord Althorp; Beauty is from Favorite (got in England by a celebrated bull, Fite's Favorite,) and she from Old Lady—price \$350.

No. 2. Young Comet is full brother to the above, just one year younger, good fair size, handsome dark red, white spots about the flanks, belly and legs: he is a prompt and active bull—price \$300.

No. 3. Wallace, calved 21st Aug. 1833, dark red, and marked much as Comet; he is from Young Favorite, by Lord Althorp; Young Favorite is from Old Favorite, by Malcolm; he was from John H. Powell's stock; a very compact and snug made bull, \$300.

No. 4. Don Pedro, a red roan from my cow Cherry, by Lord Wellington, was calved 9th Feb. 1840, and is a fine bull—\$200.

No. 5. Match Him, red roan, from Rosey, by Lord Althorp, calved 1st May, 1840, a splendid bull, \$250.

No. 6. Young Rocket, white, from Lilly, by Henry Whitney's imported bull Rocket, calved 20th August, 1840, large and fine, \$200. This bull's sire Rocket took the highest premium at the Fair of the New York Institution, and at New Haven last fall—he is a superb animal.

No. 7. Roman, calved 21st Aug. 1840, from Old Favorite, by Lord Durham, red roan—\$200—a nice pointed bull—Old Favorite took the first prize at the Cattle Show in New Haven last Fall.

## HEIFERS.

No. 1. Snow Drop, was calved 18th April, 1839, is from Young Lady, by Lord Althorp, white with red ears and red spots about the eyes; large and nice—\$200.

No. 2. Young Rosey, calved 15th June, 1839, is from Rosey by Lord Althorp, bright red with a white spot on the rump, and white spot in the face, and some white on the belly; a fine heifer—\$200.

No. 3. White Rose, calved 10th March, 1840, is from Mr. Whitney's bull Rocket; a fine clean white animal, \$200.

No. 4. Queen Victoria, calved 28th April, 1840, is from Moss Rose, by Lord Wellington, roan red, a beautiful animal, \$200.

No. 5. Violet, was calved 27th Jan. 1841, from Lady Althorp, by Lord Durham, roan red, a very promising heifer, \$150.

The above are also bred by Mr. Townsend, are all in a good healthy condition, not fat, and will do to go to a southern climate—My cows (says Mr. Townsend) are extra milkers, giving a large quantity and extra quality.

ALSO—Belonging to a gentleman who has retired from farming, and who selected the following for his own use:

The imported Short-horned Cow *Mistletoe*, was sent out by Mr. Whitaker: a beautiful strawberry roan, of large size and fine points. Got by Edwin, see *Herd Book*, No. 1957. Dam Mulberry (herd book, vol. 3, page 523); she by Isaac, 1129, grand dam by Whitworth, 1584; gr. g. d. by White Comet, 1582, a son of Mr. Collings' celebrated Comet, who was sold for 1000 guineas. Mulberry has the advantage, possessed by but few cows in this country, of standing in the *Herd Book* in her own name, (vol. 3, page 523.) She was calved 23d December, 1835, and is now in her prime, 5 years old, and is in calf by the imported bull *Llewellyn*—price \$400.

*North Point*—deep red heifer, calved Sept. 12, 1839, dam Mr. Whitaker's "Estelle," sent out to this country in the summer of 1839, sire Sir Thomas Fairfax, the bull from whom Mr. Whitaker was then breeding. Estelle was by Colossus, 1847, her dam Empress (see *Herd Book*, vol. 3, p. 372) by Imperial, 2151, gr. dam by Favorite, 1030, gr. d. by Lord Grantham's Snow Ball, 2648, &c. &c. &c.—price \$250.

*Norma*—a strawberry roan heifer calf, calved June 18, 1840, dam *Mistletoe*, (above described,) sire the bull "Sir Robert," sent out by Mr. Whitaker, and sold to R. E. Lee, Esq. of Virginia for \$700. Sir Robert is by Clarion, dam Bellflower by Sultan, 1485, grand dam Rolla, by North Star, 458, own brother to Comet, (Mr. Collings' 1000 guinea bull.) Clarion was connected directly by his sire Young Sea Gull, with the North Star strain, and by his dam *Clorinda* with that of Comet—price \$150.

*Pickwick*—a beautiful young Bull of a fine mottled red and white, bred by Mr. Shepherd, of Jefferson co. Va. calved Feb. 3d, 1839, and now 27 months old. His sire is the imported bull Dr. Berry, bred by the Rev. Henry Berry, and purchased at his sale. Dam the imported cow Daisy, by Gamford, 2044, he by Thorp, 2757, grand dam Caroline, by Young Rockingham Dr. Berry is by Martin, 2279, and he by Beloni, 1709, out of Rosanna by North Star, 459. His dam Minikin by Wharfedale, 1578, grand dam Minna by Nestor, 452, gr. g. d. Minerva by Harold, 291, gr. g. d. Mary by Meteor, 432, gr. g. d. gr. g. dam Magdalena, bred by Mr. Colling, by Comet, 155—price \$250.

ALSO—Imported short horn bull *Llewellyn*, roan, calved May 13, 1836, got by Maggot, 2238, bred by the Rev. Henry Berry, d. Gay, by Mr. Whitaker's Norfolk, 2577; gr. d. Grizel, by Young Warraby, 2812; gr. g. d. by a son of Dimple, 594; Sir Dimple's sister was sold at Mr. C. Colling's sale for \$410 guineas; gr. g. d. dam by Mr. John Woodhouse's roan bull Layton, a son of Mr. Charge's grey bull, 872. He is a beautiful fashionable roan, of fine points, and clean neck and head, and as will be seen by his pedigree, has thorough and high bred an animal as is to be found in Europe or America—price \$400.

## —ALSO—

*Defiance 3d*, improved short-horn Durham, a beautiful animal, 2 years old, dam D. S. quart's celebrated butter cow (produced from 15 to 20 lbs. per week,) sire *Defiance 2d*, grandsire *Defiance 1st*, owned by Mr. Whitaker. *Defiance 2d*, sire to the above bull, was sold at H. Powell's sale of Whitaker's stock in April, 1836, at 9 mos. old for \$270, and purchased by J. Barney, Esq. of Delaware—price \$250.

*Prince Albert*, a 7-8 Durham bull, 2 years old in August, white, price \$40.

*Young Rose*, heifer, 2 months old, full bred Durham, dam Rose, owned by Mr. Fulton; sire *Belthoover's* imported bull, price \$50. A 7-8 heifer, 1 year old, white, a beautiful animal, price \$50.

A good Milch Cow, now fresh, 5 years old, fine milk, \$40.

DEVONS—Two Devon Heifers, 3 years old, now in calf by *Defiance 3d*, full bred Durham—\$100 each.

One other Devon, a fine animal, 100. Also a 3-4 Devon & 1-4 Durham BULL, a fine animal, dam and sire very superior animals, he is 2 years old in August, price 100 dols.

Several other Devons at different prices.

AYRESHIRE—Two young Bulls, 18 months old, now ready for service—price \$100 each if taken from the owner's farm, 10 miles from this city, or \$125 if placed on board a vessel with fixtures, feed, &c. for any port in the U. S.

The above stock will be sold at prices annexed, delivered in this city, but if shipped the price of pen and feed, to be added. In all cases payment must be secured before an animal is shipped.

## HOGS.

An imported Irish Grazer Boar, about 15 months old, \$100  
A 4 Grazer & 1 Berkshire do 8 months old, deliverable in the city, \$25, if caged with feed for a distant port 3 to \$5 additional, same with others mentioned below.

Several full bred Berkshire Boars, in fine order, 5 to 7 months old, very fine animals, now ready for service, price 20 to 30

A Sow & 1 China & 1 Berkshire, 13 months old, a fine animal, 30

A Sow do. do. 13 do. belonging to another person, a handsome animal, her first litter was very fine, to be put to a Berkshire boar,

A China Sow, dam and sire imported, now in pig to a Berksh.

A 1-2 Chester and 1-2 Berkshire Sow, 12 months old

An English Sow, 14 mos. old, in pig by a Berkshire

One full bred Berkshire Sow, a beautiful animal, about 14 mos. old, now in pig by a very superior boar in Albany, and to have her second litter in two weeks, (raised her first of 8)

One do 2 years old, 45

One do 8 months old, 40

Three Boars 1-2 Berkshire 1-2 Chester, 12 mos. old; these are the product of the finest stock in the country, each

Two pairs very fine and handsome 3-4 Berkshire and 1-4 China

Pigs, upwards of 4 months old, unrelated, one pair \$20, other 15

Orders received for Berkshire pigs of this spring's litters, caged with feed for any distant port, at \$25 per pair.

## SHEEP.

One full bred Bakewell Buck, \$45

One 1-2 Bakewell do. 15

Two 3-4 do do. 2 months old, each 12 1/2

Six 1-2 do Ewes, 4 of one year, and 2 of 2 yrs. 8 1/2

One 3-4 do lamb do. belonging to one of the ewes, 4

Orders for Stock must be accompanied with the cash, or instructions to draw on some house in a commercial city after a bill of lading is forwarded, otherwise they cannot be attended to.

Address, post paid, SAM'L SANDS, may 5 Publisher American Farmer, Baltimore, Md.

## BERKSHIRES &amp; IRISH GRAZIER PIGS.

The subscriber will receive orders for his spring litters of pure Berkshire Pigs bred from stock selected of C. N. Bement & John Lossing, Esqs. of Albany, N.Y. and importations from England; also for Irish Grazer (or improved Ulster) Pigs bred from the celebrated stock of Mr. Murdock of Ireland. Also for crosses of Berkshire & Irish Grazer and the Black & white Berkshire. Price, same as at Albany for pure Berkshire & above crosses, \$20 per pair; for Irish Graziers \$25 per pair, with the addition of \$1 for Cage, deliverable in or shipped at the port of Baltimore.

Address, post paid, JOHN P. E. STANLEY, f 24 Baltimore

## BERKSHIRE PIGS.

Having disposed of all our fall pigs, we will continue to receive orders for our spring litters of pure Berkshire pigs, ready for delivery from the 1st of June to the middle of July, 1841, from our valuable stock of breeders (for particulars of which see former advertisement.) Price at their piggery \$20 per pair; cooped and delivered in the City of Baltimore, or shipped at the port of Baltimore, \$25 per pair. Also for half bloods out of good country sows, by Prince Albert—Price at their piggery \$8 per pair; cooped and delivered in, or shipped at the port of Baltimore, \$10 per pair.

All communications post paid will meet with prompt attention according to date. Address THOS. T. GORSUCH and EDWD. GORSUCH, HENEFORD, Baltimore Co. Md

PRINCE ALBERT will serve blooded Sows at \$11 each, and common do. at \$6—they will be received and delivered at Watkins Tavern, corner of High and Hillen sts. fe 4

## LIME FOR AGRICULTURAL PURPOSES.

The subscribers have erected kilns for burning Lime on the farm of Minchin Lloyd, Esq. at the mouth of Pickawaxen Creek, on the Potomac, and are now prepared to furnish farmers and planters with the article, of a superior quality for the above purposes, at the low price of ten cents per bushel, delivered on board vessels; and there will be no detention to the vessels receiving the same. All orders will be punctually attended to, addressed to Milton Hill Post Office, Charles county, Md. april 7—6m\*

LLOYD & DOWNING.

A FEW PAIR OF BEAUTIFUL TURKEYS, Pure white, at \$5 per pair. Also FANCY PIGEONS, different kinds, \$3 to \$5 per pair. Apply to S. SANDS.

## FOR SALE—A 3-YEAR OLD BAY STALLION,

Colt of the Tom breed, goes all gaits out of hand, and very handsome, out of a superior Tom mare by T. R. S. Boyce's Tom Speedwell. He is pronounced by competent judges to be inferior to no colt of the same breed.

REZIN SNOWDEN,

my 5 3t near Laurel Factory, P. George's Co. Md.

## LIME, LIME.

The subscribers inform the public that they are now prepared to receive orders for any reasonable quantity of first quality Oyster Shell Lime, deliverable at their kilns on the farm of Capt. John C. Jones, Lower Cedar Point, or on any of the navigable waters of the Potomac, on very accommodating terms. Having been engaged for the last ten years in the Lime burning business entirely for Agricultural purposes in Pennsylvania, we would not think it necessary to say one word in favor of it as a manure, within its limits, it being well established; but being now located where perhaps it may be called by some an experiment, we refer to the Reports of Mr. Ducatel, Geologist for this state, to the Legislature.

DOWNING & WOOD, Cedar Point, Milton Hill P. O. ja 13 6m\* Charles Co. Md.

FOR SALE, on reasonable terms, to close a consignment, at wholesale or retail—200 bushels of prime fresh Herds Grass Seed. Also, 400 prime three bowed Hay Rakes, New England make, by whole-sale or retail; and also Hay and Manure Forks, by the single or dozen.

Likewise, superior Pennsylvania made Grain Cradles, fingers adjusted by screws; Grain & Grass Scythes, &c. with my usual assortment of Agricultural Implements. J. S. EASMAN, mh31 Pratt street near Hanover.

N. B. Landreth superior Garden Seeds always on hand for sale at retail. Also, just received, tea of Bachelor's Corn Planters, price each \$25. J. T. E.

## HUSSEY'S CORN SHELTER AND HUSKER.

The subscriber respectfully informs the public that he is now engaged in manufacturing these celebrated machines; they are now so well known that it is not deemed necessary here to enlarge on their merits further than to say, that the ordinary work is 40 bushels of shelled corn per hour, from corn in the husk, and one hundred bushels per hour when it is previously husked. Abundant testimony to the truth of this can be given if required, as well as of the perfect manner in which the work is done. His machine could be made to do double this amount of work, but it would be necessarily expensive and unwieldy. Besides, experience has often shown that a machine of any kind may be rendered comparatively valueless by any attempt to make it do too much, this therefore, is not intended to put the corn in the bag, but to be exactly what the farmer requires at the low price of \$5 dollars.

The subscriber also informs the public, that he continues to manufacture Ploughs of every variety, and more particularly his patent self sharpening plough, which is in many places taking the place of ploughs of every other kind. He also manufactures Martineau's Iron Horse Power, which for beauty, compactness and durability, has never been surpassed. The subscriber being the proprietor of the patent right for Maryland, Delaware, and the Eastern Shore of Virginia, these horse powers cannot be legally sold by any other person within the said district.

Thrashing Machines, Wheat Fans, Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order at the shortest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment corner of Front & Ploughman sts. near Baltimore st. Bridge, or No. 20, Pratt street. R. B. CHENOWETH, Baltimore, mar 31, 1841

## MULTICAULIS TREES.

The undersigned, residing 14 miles from the city has on his farm about 20,000 Multicaulis Trees of vigorous growth, 3 years old, which he will either sell or FEED ON SHARES, provided a responsible person will undertake it. Suitable out-houses on the farm with abundance of room, in the immediate vicinity of the trees, with every necessary convenience for feeding a large number of worms can be furnished. Apply at No. 39 Baltimore street, or to

WILLIAM JESSOP, near Cockeysville, Balt. Co.

For sale, a number of very fine Pigs, a cross of the Berkshire on the China—price \$10 a pair—the boar from Lossing's stock. Apply as above. ap 21 3t\*

## PLOUGHS! PLOUGHS!! PLOUGHS!!!

A. G. & N. U. MOTT,

Corner of Ensor and Forrest-streets, O. T., near the Belle-Air Market,

Being the only Agents for this State, are now manufacturing the celebrated WILEY'S PATENT DOUBLE POINTED CAPT PLOUGH, of the New York Composition Castings, which is pronounced by some of the most eminent and experienced farmers in the country, to be the best which they have ever used, not only as regards the ease and facility with which it turns the sod, it being nearly one draught lighter than ploughs of the ordinary kind, but also for its economical qualities; for with this plough the Farmer is his own Blacksmith. Every farmer who has an eye to his own interest, would find that interest promoted by calling and examining for himself. We also make to order, other ploughs of various kinds, CULTIVATORS, CORN SHELTERS, GRAIN CRADLES, STRAW CUTTERS, RICE'S IMPROVED WHEAT FAN, &c., &c. Thankful for past favors, we shall endeavor to merit a continuance of the same. mar 3 13t\*

JOHN T. DURDING, Agricultural Implement Manufacturer, Grant and Elliott street, near Pratt st. in the rear of Messrs. Dinwiddie & Kyle's, Baltimore,